

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Cancel Claims 1-76

77. (New) A recognition molecule, characterized in that it comprises an amino acid sequence which contains
- (i) the amino acid sequence SEQ ID NO. 1 or 2 and
 - (ii) the amino acid sequence SEQ ID NO. 3 or 4 and
 - (iii) the amino acid sequence SEQ ID NO. 5 or 6
- and
- specifically binds the glycosylated MUC1 tumor epitope.
78. (New) The recognition molecule according to claim 77, characterized in that it comprises an amino acid sequence which contains the amino acid sequences SEQ ID NO. 1 and SEQ ID NO. 3 and SEQ ID NO. 5 and specifically binds the glycosylated MUC1 tumor epitope.
79. (New) The recognition molecule according to claim 77, characterized in that the antibody framework sequences
- a) FRH1, FRH2, FRH3 and FRH4 for the variable heavy chain V_H are the following amino acid sequences, the amino acid position corresponding to the numbering according to Kabat:

for FRH1 in position	1	E
	2	V
	3	K
	4	L
	5	V
	6	E
	7	S
	8	G
	9	G
	10	G
	11	L
	12	V
	13	Q

	14	P
	15	G
	16	G
	17	S
	18	M
	19	K
	20	L
	21	S
	22	C
	23	A or V
	24	A, V, S or T
	25	S
	26	G
	27	Y, F, S or D
	28	T
	29	F, L or I
	30	S
for FRH2 in position	36	W
	37	V
	38	R
	39	Q
	40	S
	41	P
	42	E
	43	K
	44	G
	45	L
	46	E
	47	W
	48	V
	49	A
for FRH3 in position	66	R
	67	F
	68	T
	69	I
	70	S
	71	R

for FRH4 in position

72 D
73 D or V
74 S
75 K
76 S
77 S
78 V
79 Y or S
80 L
81 Q
82 M
82a N
82b N
82c L
83 R
84 A or V
85 E
86 D
87 T
88 G
89 I
90 Y
91 Y
92 C
93 T
94 R, G, N, K or S
103 W
104 G
105 Q
106 G
107 T
108 T
109 L
110 T
111 V
112 S
113 S or A

b) FRL1, FRL2, FRL3 and FRL4 for the variable light chain V_L are the following amino acid sequences, the amino acid position corresponding to the numbering according to Kabat:

for FRL1 in position	1	D
	2	I, V or L
	3	V
	4	M or L
	5	T
	6	Q
	7	T or A
	8	P or A
	9	L or F
	10	S
	11	L or N
	12	P
	13	V
	14	S or T
	15	L
	16	G
	17	D or T
	18	Q or S
	19	A
	20	S
	21	I
	22	S
	23	C
for FRL2 in position	35	W
	36	Y
	37	L
	38	Q
	39	K
	40	P
	41	G
	42	Q or L
	43	S
	44	P
	45	K or Q

for FRL3 in position

46 L
47 L
48 I or V
49 Y
57 G
58 V
59 P
60 D
61 R
62 F
63 S
64 G or S
65 S
66 G
67 S
68 G
69 T
70 D
71 F
72 T
73 L
74 K or R
75 I
76 S
77 R
78 V
79 E
80 A
81 E
82 D
83 L or V
84 G
85 V
86 Y
87 Y
88 C
98 F

for FRL4 in position

99 G
100 G or D
101 G
102 T
103 K
104 L
105 E
106 I or L
106a K
107 R
108 A

80. (New) The recognition molecule according to claim 77 characterized in that the recognition molecule comprises a combination of sequences SEQ ID Nos. 33 and 35 or humanized variants of said sequences.
81. (New) The recognition molecule according to claim 80, characterized in that it comprises a single-chain antibody fragment, a multibody, a Fab fragment, a fusion protein of an antibody fragment with peptides or proteins and/or an immunoglobulin of the IgG, IgM, IgA, IgE, IgD isotypes and/or subclasses thereof.
82. (New) The construct according to claim 81, characterized in that the recognition molecules are fused, chemically coupled, covalently or non-covalently associated with (i) immunoglobulin domains of various species, (ii) enzyme molecules, (iii) interaction domains, (iv) domains for stabilization, (v) signal sequences, (vi) fluorescent dyes, (vii) toxins, (viii) catalytic antibodies, (ix) one or more antibodies or antibody fragments with different specificity, (x) cytolytic components, (xi) immunomodulators, (xii) immunoeffectors, (xiii) MHC class I or class II antigens, (xiv) chelating agents for radioactive labelling, (xv) radioisotopes, (xvi) liposomes, (xvii) transmembrane domains, (xviii) viruses and/or (xix) cells.
83. (New) A method for the production of recognition molecules or constructs according to claim 77, comprising:
- (i) incorporating one or more nucleic acid molecules encoding the amino acid sequence of at least one recognition molecule according to claim 77 in a virus or in a host cell;
 - (ii) culturing the host cells or viruses under suitable conditions; and

- (iii) obtaining the recognition molecule or construct, the effector cell bearing the recognition molecule or construct, or the virus, which specifically recognize the glycosylated MUC1 tumor epitope.
84. (New) Use of a recognition molecule according to claim 77 in the prophylaxis, prevention, diagnosis, reduction, therapy, follow-up and/or aftercare of tumor diseases and/or metastases.
85. (New) The use according to claim 84, characterized in that the recognition molecules comprise IgG or fragments thereof.
86. (New). The use according to claim 84, characterized in that the recognition molecules comprise multibodies.